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EXAMINER	
LE, MIRANDA	
ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/669,311	ALLEN, WAYNE J.	
	Examiner	Art Unit	
	MIRANDA LE	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/03/2007 has been entered.

2. This communication is responsive to Amendment filed 10/03/2007.

Claims 1-23 are pending in this application. This action is made non-Final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless:
>
> (e) the invention was described in
>
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or
>
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-10, 12, 13, 15-21, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Coupal et al. (US Patent No. 6,931,574).

Coupal anticipated independent claims 1, 9, 13, 21 by the following:

As per claim 1, Coupal teaches a method/an article of manufacture comprising:

querying a file that defines a protocol *(i.e. protocol definition file, col. 10. lines 33-45)* for which protocol support is to be added to a network traffic generation and analysis tool to process network traffic *(i.e. the relevant protocol definition file would be loaded into the protocol database 34 (FIG. 4) for use by the analyzer 12, col. 10, lines 33-45)*;

determining from the queried file how packets for the protocol are constructed *(i.e. the protocol editor is used to prepare a series of predefined protocol definition constructs that can be used to preferably accomplish several objectives. First, the constructs provide the ability to define the data frame corresponding to the relevant physical layer protocol, such as the components of the frame header, etc. Second, the constructs preferably provide high level descriptions that can be displayed to a user to describe the various fields of the frame and its contents. Third, the constructs provide a means for identifying and describing the various protocol layer messages that are contained within the payload of physical layer data frame, as well as the relationships between these various protocol layers--again, in a manner that is descriptive to a human user, col. 10, line 46 to col. 11, line 8)*;

building a protocol runtime specification *(i.e. the format of a network data frame, col. 9, lines 34-55)* based on how packets for the protocol are constructed *(i.e. a user would define the data frame of a given physical layer protocol, as well as all of the higher level protocol permutations, using the definition constructs, col. 4, lines 41-57)*, the protocol runtime specification specifying how packets for the protocol are processed by the network traffic generation and analysis tool *(i.e. a protocol analyzer device, col. 4, lines 5-32)*;

receiving packets for the protocol *(i.e. utilize the protocol definition file to interpret captured data packets, col. 4, lines 41-57)*; and

processing data from the received packets in the network traffic generation and analysis tool in accordance with the protocol runtime specification, including translating *(i.e. it is desirable for this information content to be translated into a higher level, user understandable format, so as to provide a useful set of information for analysis of the network, col. 10, lines 6-20)* data from the received packets into a format for analyzing traffic in the network traffic generation and analysis tool *(i.e. the network analyzer 12 obtains a data frame from the network 30. As is well know, this functionality is provided by way of the network interface module 14, which obtains serial data from the physical medium of the network 30, and segments the data into data frames in accordance with the particular physical layer protocol of the interface module 14, col. 11, lines 20-31; the analyzer interprets the frame in accordance with the contents of the protocol definition file previously defined and stored in the protocol data base 34. In addition, the frame's contents are displayed in the manner prescribed by the protocol definition file, including, preferably, with some type of description using a higher-level, user understandable format 34, col. 11, lines 32-52).*

As per claim 9, Coupal teaches an apparatus comprising:

a storage element *(Fig. 1)* to store a file that defines a protocol for which protocol support is to be added to a network traffic generation and analysis tool to process network traffic *(i.e. the relevant protocol definition file would be loaded into the protocol database 34 (FIG. 4) for use by the analyzer 12, col. 10, lines 33-45)*;

a translation unit *(i.e. a protocol analyzer device, col. 4, lines 5-32)* coupled to the storage element to query the file to determine how packets for the protocol are constructed and to build a protocol runtime specification for the protocol *(i.e. the network analyzer 12 obtains a data frame from the network 30. As is well know, this functionality is provided by way of the network interface module 14, which obtains serial data from the physical medium of the network 30, and segments the data into data frames in accordance with the particular physical layer protocol of the interface module 14, col. 11, lines 20-31)*, the protocol runtime specification *(i.e. the format of a network data frame, col. 9, lines 34-55)* specifying how packets for the protocol are processed by the network traffic generation and analysis tool *(i.e. a user would define the data frame of a given physical layer protocol, as well as all of the higher level protocol permutations, using the definition constructs, col. 4, lines 41-57)*; and

the translation unit further to receive packets for the protocol and to process data from the received packets in the network traffic generation and analysis tool in accordance with the protocol runtime specification, including translating *(i.e. it is desirable for this information content to be translated into a higher level, user understandable format, so as to provide a useful set of information for analysis of the network, col. 10, lines 6-20)* data from the received packets into a format for analyzing traffic in the network traffic generation and analysis tool *(i.e. the analyzer interprets the frame in accordance with the contents of the protocol definition file previously defined and stored in the protocol data base 34. In addition, the frame's contents are displayed in the manner prescribed by the protocol definition file, including, preferably, with some type of description using a higher-level, user understandable format 34, col. 11, lines 32-52)*.

As per claim 13, Coupal teaches an article of manufacture comprising:

a machine accessible medium (see Fig.1) including content that when accessed by a machine causes the machine to:

query a file that defines a protocol *(i.e. protocol definition file, col. 10. lines 33-45)* for which protocol support is to be added to a network traffic generation and analysis tool to process network traffic *(i.e. the relevant protocol definition file would be loaded into the protocol database 34 (FIG. 4) for use by the analyzer 12, col. 10, lines 33-45)*;

determine from the queried file how packets for the protocol are constructed *(i.e. the protocol editor is used to prepare a series of predefined protocol definition constructs that can be used to preferably accomplish several objectives. First, the constructs provide the ability to define the data frame corresponding to the relevant physical layer protocol, such as the components of the frame header, etc. Second, the constructs preferably provide high level descriptions that can be displayed to a user to describe the various fields of the frame and its contents. Third, the constructs provide a means for identifying and describing the various protocol layer messages that are contained within the payload of physical layer data frame, as well as the relationships between these various protocol layers--again, in a manner that is descriptive to a human user, col. 10, line 46 to col. 11, line 8)*;

build a protocol runtime specification *(i.e. the format of a network data frame, col. 9, lines 34-55)* based on how packets for the protocol are constructed *(i.e. a user would define the data frame of a given physical layer protocol, as well as all of the higher level protocol permutations, using the definition constructs, col. 4, lines 41-57)*, the protocol runtime

specification specifying how packets for the protocol are processed by the network traffic generation and analysis tool *(i.e. a protocol analyzer device, col. 4, lines 5-32)*;

receive packets for the protocol *(i.e. utilize the protocol definition file to interpret captured data packets, col. 4, lines 41-57)*; and

process data from the received packets in the network traffic generation and analysis tool in accordance with the protocol runtime specification, including translating *(i.e. it is desirable for this information content to be translated into a higher level, user understandable format, so as to provide a useful set of information for analysis of the network, col. 10, lines 6-20)* data from the received packets into a format for analyzing traffic in the network traffic generation and analysis tool *(i.e. the network analyzer 12 obtains a data frame from the network 30. As is well know, this functionality is provided by way of the network interface module 14, which obtains serial data from the physical medium of the network 30, and segments the data into data frames in accordance with the particular physical layer protocol of the interface module 14, col. 11, lines 20-31; the analyzer interprets the frame in accordance with the contents of the protocol definition file previously defined and stored in the protocol data base 34. In addition, the frame's contents are displayed in the manner prescribed by the protocol definition file, including, preferably, with some type of description using a higher-level, user understandable format 34, col. 11, lines 32-52).*

As per claim 21, Coupal teaches a system comprising:

a storage element *(Fig. 1)* to store a file that defines a protocol for which protocol support is to be added to a network traffic generation and analysis tool to process network traffic *(i.e. the*

relevant protocol definition file would be loaded into the protocol database 34 (FIG. 4) for use by the analyzer 12, col. 10, lines 33-45);

a translation unit *(i.e. a protocol analyzer device, col. 4, lines 5-32)* coupled to the storage element to query the file to determine how packets for the protocol are constructed and to build a protocol runtime specification for the protocol *(i.e. the network analyzer 12 obtains a data frame from the network 30. As is well know, this functionality is provided by way of the network interface module 14, which obtains serial data from the physical medium of the network 30, and segments the data into data frames in accordance with the particular physical layer protocol of the interface module 14, col. 11, lines 20-31)*, the protocol runtime specification *(i.e. the format of a network data frame, col. 9, lines 34-55)* specifying how packets for the protocol are processed by the network traffic generation and analysis tool *(i.e. a user would define the data frame of a given physical layer protocol, as well as all of the higher level protocol permutations, using the definition constructs, col. 4, lines 41-57)*, the translation unit further to receive packets for the protocol and to process data from the received packets in the network traffic generation and analysis tool in accordance with the protocol runtime specification, including translating *(i.e. it is desirable for this information content to be translated into a higher level, user understandable format, so as to provide a useful set of information for analysis of the network, col. 10, lines 6-20)* data from the received packets into a format for analyzing traffic in the network traffic generation and analysis tool *(i.e. the analyzer interprets the frame in accordance with the contents of the protocol definition file previously defined and stored in the protocol data base 34. In addition, the frame's contents are displayed in the manner prescribed by the protocol*

definition file, including, preferably, with some type of description using a higher-level, user understandable format 34, col. 11, lines 32-52);

a network interface coupled to the translation unit *(i.e. The protocol analyzer device 12 illustrated in FIG. 1 also includes a network interface card (NIC) 14 that allows for the physical and electrical interconnection with the network 30, as is depicted schematically at 24, col. 8, lines 41-54)*; and

a network driver *(i.e. the packet analysis software module, col. 8, line 55 to col. 9, line 14)* coupled to the network interface.

As to claims 3, 12, 15, 23, Coupal teaches determining from the file how to display one or more user interface elements *(i.e. FIG. 11 illustrates yet another graphics Window illustrating some of these concepts. Here, the field "Ver" (at 190) is selected by the user within the hierarchical tree on the left-hand side 104 of the Window, and highlighted. The properties of "Ver" are displayed in the top-right panel 192. The result panel 194 of the window displays the current offset of 3 words 2 bytes for that field inside an Ethernet frame, represented at 196. The result panel 194 also highlights that the first two bytes of the fourth Ethernet frame word need to be 0x0800 (at 198) in order to have an IP header with the "Ver" field, col. 22, lines 3-13).*

As to claims 4, 16, Coupal teaches determining from the queried file how packets for the protocol are constructed comprises determining whether there are one or more protocol encapsulations *(i.e. the protocol definition allows for all of the protocol stacks that may be*

contained within the physical data frame to also be identified and also described in an understandable format, col. 4, lines 5-32).

As to claims 5, 17, Coupal teaches determining from the queried file how packets for the protocol are constructed *(i.e. each captured data frame is interpreted in accordance with the definitions provided by the definition constructs, col. 9, lines 34-55)* comprises determining a field type of one or more fields for the protocol *(i.e. This preamble is followed by a "destination address" field 51, which designates the unique address of the network connected device that is to receive the data frame. Next is the "source address" field 53, which designates the unique address of the device that sent the data frame. Each of these address fields contain the Medium Access Control ("MAC") addresses of the source and destination devices on the network 30, col. 11, lines 32-52).*

As to claims 6, 18, Coupal teaches determining from the queried file how packets for the protocol are constructed comprises determining a field size of one or more fields for the protocol *(i.e. The Ethernet data frame begins with an 8-byte preamble field (which is not shown in this illustration), which is used for synchronization purposes. This preamble is followed by a "destination address" field 51, which designates the unique address of the network connected device that is to receive the data frame. Next is the "source address" field 53, which designates the unique address of the device that sent the data frame. Each of these address fields contain the Medium Access Control ("MAC") addresses of the source and destination devices on the network 30. The MAC address is a unique address hardwired into the station's network interface card,*

such as that shown at 14 in FIG. 1. For the Ethernet protocol, each address is 6 bytes (48-bits) in length, col. 9, lines 34-55).

.

As to claims 7, 19, Coupal teaches determining from the queried file how packets for the protocol are constructed comprises determining a default value of one or more fields for the protocol *(i.e. an 8-byte preamble field, col. 9, lines 34-55; The last field is a 4 byte frame sequence ("FCS") 56, which is used for error detection, col. 9, line 63 to col. 10, line 5).*

As to claims 8, 20, Coupal teaches determining from the queried file how packets for the protocol are constructed comprises determining whether there is a calculation to be performed for one or more fields of the protocol *(i.e. Header Checksum, col. 24).*

As per claim 10, Coupal teaches the apparatus of claim 9, further comprising a network interface couple to the translation unit *(i.e. The protocol analyzer device 12 illustrated in FIG. 1 also includes a network interface card (NIC) 14 that allows for the physical and electrical interconnection with the network 30, as is depicted schematically at 24, col. 8, lines 41-54).*

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 11, 14, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coupal et al. (US Patent No. 6,931,574), in view of Harvey et al. (US Patent No. 7,054,924).

As per claim 2, 11, 14, 22, Coupal does not specifically teach the file is written in an Extensible Markup Language (XML).

Harvey teaches the file is written in an Extensible Markup Language (XML) *(See Table 2, col. 16)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Coupal and Harvey at the time the invention was made to modify the system of Coupal to include the file is written in an Extensible Markup Language (XML) as taught by Harvey. One of ordinary skill in the art would be motivated to make this combination in order to configuration and management of computer network devices in view of Harvey *(See FIELD OF INVENTION)*, as doing so would give the added benefit of accomplishing automatic network provisioning without requiring a skilled technician to visit customer premises to carry out configuration as taught by Harvey *(col. 2, lines 51-65)*.

Response to Arguments

7. Applicant's arguments regarding "Applicant has further clarified in the independent claims that the protocol runtime specification that is built based on how packets for a protocol are constructed, further specifies how packets for that protocol should be processed by the network traffic generation and analysis tool, including how to translate them into a format for analyzing traffic in the network traffic generation and analysis tool", with respect to claims 1-23, have been considered, but are moot in view of new ground of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/
Primary Examiner, Art Unit 2167